

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Addiese: COMMISSIONER FOR PATENTS P O Box 1450 Alexandra, Virginia 22313-1450 www.wepto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/526,707	03/03/2005	Oliver Amberny	31103/41036	7433	
4743 MARSHALL	7590 10/01/200 GERSTEIN & BORUN	EXAM	EXAMINER		
233 SOUTH WACKER DRIVE			HOLLIDAY, JA	HOLLIDAY, JAIME MICHELE	
6300 SEARS CHICAGO, II		ART UNIT	PAPER NUMBER		
			2617		
			MAIL DATE	DELIVERY MODE	
			10/01/2009	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.	Applicant(s)	Applicant(s)		
10/526,707	AMBERNY ET AL.	AMBERNY ET AL.		
Examiner	Art Unit			
JAIME M. HOLLIDAY	2617			

	JAIME M. HOLLIDAY	2617	
The MAILING DATE of this communication	n appears on the cover sheet wit	h the correspondence ad	dress
Period for Reply A SHORTENED STATUTORY PERIOD FOR RI WHICHEVER IS LONGER, FROM THE MAILIN Extensions of time may be available under the provisions of 37 CI after SIX (6) MONTH's from the mailing date of the communication I NO period for reply is specified above, the maximum statutory p Failure to reply within the set or extended period for reply will. by Any reply received by the Office later than three months after the earned patent term adjustment, See 37 CFR 1.704(b).	G DATE OF THIS COMMUNIC FR 1.136(a). In no event, however, may a re in. eriod will apply and will expire SIX (6) MONT statute, cause the application to become ABA	ATION. ply be timely filed HS from the mailing date of this or NDONED (35 U.S.C. § 133).	
Status			
1)⊠ Responsive to communication(s) filed on 2a)□ This action is FINAL. 2b)⊠ 3)□ Since this application is in condition for all closed in accordance with the practice unc	This action is non-final. owance except for formal matte		merits is
Disposition of Claims			
4) ⊠ Claim(s) 1-4 and 6-15 is/are pending in th 4a) Of the above claim(s) is/are with 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-4 and 6-15 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction a	ndrawn from consideration.		
Application Papers			
9) The specification is objected to by the Exal 10) The drawing(s) filed on is/are: a) Applicant may not request that any objection to Replacement drawing sheet(s) including the c 11) The oath or declaration is objected to by the	accepted or b) objected to be the drawing(s) be held in abeyand prection is required if the drawing(s	e. See 37 CFR 1.85(a). s) is objected to. See 37 CF	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for for a) All b) Some * c) None of: 1. Certified copies of the priority docur 2. Certified copies of the priority docur 3. Copies of the certified copies of the application from the International Bt * See the attached detailed Office action for a	ments have been received. ments have been received in Appriority documents have been rureau (PCT Rule 17.2(a)).	plication No eceived in this National	Stage
Attachment(s)			

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SE/08)
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____. 5) Notice of Informal Patent Application.
- 6) Other: _

Paper No(s)/Mail Date _____

Application/Control Number: 10/526,707 Page 2

Art Unit: 2617

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 13, 2009 has been entered.

Response to Arguments

 Applicant's arguments with respect to claims 1-4 and 6-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

- The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 2617

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 6-9, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shaver et al. (US 6,947,736 B2) and Lesguillier et al. (US 6,727,804 B1) in view of Chow et al. (US 7,573,891 B1), and in further view of Folger et al. (5,337,044).

Consider claim 1, Shaver et al. clearly show and disclose a central base for a private wireless local area network (home networking method and system is based on the IEEE 802.11 wireless networking standard expanded to encompass home phone line media communication and/or home power line media communication operation seamlessly [abstract]), the central base comprising an electronic central unit (access point 250 [fig. 2]) that is supplied with electricity by at least one live supply line intended to be connected to an external electricity power source (one AFE can be included power line operating in a 20 MHz band above 2 MHz [col. 3 lines 45-65]), said electronic central unit adapted to communicate with a public telecommunication network via a plain old telephone service (POTS) connection, and with at least one wireless peripheral device, according to a digital bidirectional wireless protocol for a private wireless local area network (one AFE, included in the access point, can be included for wireless operating at either 2.4 GHz or 5.0 GHz, one for phone line operating in a 20 MHz band above 2 MHz over standard home phone wiring [fig. 2, col. 3 lines

45-65]); an interface circuit (AFE (analog front end) [col. 3 lines 60-65]) which is controlled by the electronic central unit of said central base and which is connected to said supply line, wherein the electronic central unit is adapted to communicate messages between either one of the public communication network or the at least one wireless peripheral device and the power supply line (the terminal devices include power line stations 212, phone line stations 222 and wireless stations 232 in which station-to-station transmission between wireless and wired terminals are enabled via the intelligent access point [fig. 2, col. 3 lines 17-21]), and wherein the central base suitable for sending outgoing messages at least to the public telecommunication network and for receiving incoming messages at least from said public telecommunication network (an AFE includes the transmitter, receiver and other typical hardware/software providing the interface between a specific medium and the physical layer for encoding/decoding and modulating/demodulating; the access point coordinates and interconnects access between any user stations connected to the same or different media within HomeAll [col. 3 lines 35-40; 49-53, col. 4 lines 30-44]), the electronic central unit of the central base being suitable for: (a) recognizing at least certain incoming messages intended for an external interface module, called service messages, and for causing to be generated on the supply line, by said interface circuit of the central base, a message corresponding to each incoming service message, (b) and when it receives a message received by the interface circuit of the central base on the supply line, determining whether this

Art Unit: 2617

message must be transmitted to the outside and, in this case, sending an outgoing message, called outgoing service message, corresponding to the message received (the 802.11 MAC data frames have up to four address fields, each specifying a source address (SA), a transmitter address (TA), a receiver address (RA), and a destination address (DA); the access point can forward a data frame received from a communication link (such as on a wireless medium) to another communication link (such as on a wireline medium) based on the SA and DA values in the received frame, thereby bridging the two subnetworks comprising these two links [col. 3 lines 35-40; 49-53, col. 4 lines 30-44]).

However, Shaver et al. fail to specifically disclose that an interface circuit adapted to send and receive messages on said supply line, and further adapted to send and receive high frequency periodic signals representative of sent and received messages.

In the same field of endeavor, Lesguillier et al. clearly show and disclose an interface circuit adapted to send and receive messages on said supply line (power line communication system includes a transmitter and a receiver, both providing a communication path between two communication control devices over a power line [abstract]); and further adapted to send and receive high frequency periodic signals representative of sent and received messages (if the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise; however, if the received signal

Art Unit: 2617

on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message [col. 2 lines 1-12]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demodulate frequencies on a power line to indicate a message within the signal as taught by Lesguillier et al. in the method of Shaver et al., in order to implement a home network using multiple protocols.

However, Shaver et al., as modified by Lesguillier et al., fail to specifically disclose a low-pass filter adapted to filtering said high frequency periodic signals.

In the same field of endeavor, Chow et al. clearly show and disclose a low-pass filter adapted to filtering said high frequency periodic signals received from the supply line between the interface circuit of the central base and at least a portion of the electronic circuits of the central base (HFP portal includes deployment of an isolator, wherein the isolator is a low pass filter that allows 50/60 Hz power through but stops the high frequency communication signals [fig. 11, col. 25 lines 42-63]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to stop high frequencies as taught by Chow et al. in the method of Shaver et al., as modified by Lesguillier et al., in order to provide communication via a power transmission line to a subscriber.

Art Unit: 2617

However, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al., fails to specifically disclose that information (messages) sent and received are alphanumeric messages.

In the same field of endeavor, Folger et al. clearly show and disclose alphanumeric message (a command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad [abstract, col. 3 lines 61-67, col. 6 lines 5-11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al., in order to implement a home network using multiple protocols.

Consider **claim 2**, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Shaver et al. further disclose in which the interface circuit of the central base is installed in drop and insert mode on said supply line (the AFEs are interchangeably connectable to each type of station and the access point [col. 3 lines 55-57]).

Consider claim 6, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention as applied to claim 1 above, and in addition, Shaver et al. further disclose sending outgoing messages to at least one wireless peripheral

Art Unit: 2617

device by using said wireless protocol, and for receiving incoming messages from said wireless peripheral device (terminal devices include power line stations, phone line stations and wireless stations in which station-to-station transmission between wireless and wired terminals are enabled via an intelligent access point [col. 3 lines 17-21]).

However, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al., fails to specifically disclose that information (messages) sent and received are alphanumeric messages.

In the same field of endeavor, Folger et al. further disclose alphanumeric message (command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad [abstract, col. 3 lines 61-67, col. 6 lines 5-11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al., in order to implement a home network using multiple protocols.

Consider claim 7, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention as applied to claim 1 above, and in addition, Shaver et al. further disclose that wireless device comprising a central base and an external interface module, distinct from the central base (with an access point adapted to

Art Unit: 2617

communicate with all three medium types, each type of terminal device (station) can communicate station-to-station with different types of terminal devices via the access point [col. 4 lines 5-10]), which itself comprises: an electronic central unit, and an interface circuit controlled by said electronic central unit of the external interface module and which is connected to said supply line, this interface circuit of the external interface module being suitable for communicating with the interface circuit of the central base by sending and receiving messages on said supply line (the access point includes three AFEs each adapted to communicate with a different one of the medium types discussed; a power line station 212 only includes an AFE adapted to communicate with the power line medium; the same (or substantially the same) digital transceiver section 310 and higher layer protocols can be used in each station 212, 222 and 232, and in access point [col. 3 line 62- col. 4 line 10]).

Consider claim 8, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention as applied to claim 7 above, and in addition, Shaver et al. further disclose in which the interface circuit of the external interface module is installed in drop and insert mode on said supply line (the AFEs are interchangeably connectable to each type of station and the access point [col. 3 lines 55-57]).

Consider claim 9, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the

claimed invention as applied to claim 7 above, and in addition, Shaver et al. further disclose interface circuit of the external interface module, and an electricity supply device intended to connect said supply line to the external electricity power source (the terminal devices include power line stations 212, phone line stations 222 and wireless stations 232 in which station-to-station transmission between wireless and wired terminals are enabled via the intelligent access point; a power line station 212 only includes an AFE adapted to communicate with the power line medium [fig. 2, col. 3 lines 17-21, 62-64, col. 4 lines 1-21).

However, Shaver et al. fail to specifically disclose interface circuit of the external interface module is suitable for sending and receiving high frequency periodic signals representative of messages sent and received, and an electricity supply device intended to connect said supply line to the external electricity power source.

In the same field of endeavor, Lesguillier et al. further disclose interface circuit of the external interface module is suitable for sending and receiving high frequency periodic signals representative of messages sent and received, and an electricity supply device intended to connect said supply line to the external electricity power source (if the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise. However, if the received signal on the power line is higher than the reference

signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message [col. 2 lines 1-12, col. 3 lines 20-30]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to block high frequencies as taught by Lesguillier et al. in the communication method of Shaver et al., in order to implement a home network using multiple protocols.

However, Shaver et al., as modified by Lesguillier et al., fail to specifically disclose a low-pass filter adapted to filtering said high frequency periodic signals.

In the same field of endeavor, Chow et al. clearly show and disclose module comprises a low-pass filter suitable for filtering said high frequency periodic signals (HFP portal includes deployment of an isolator, wherein the isolator is a low pass filter that allows 50/60 Hz power through but stops the high frequency communication signals [fig. 11, col. 25 lines 42-63]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to stop high frequencies as taught by Chow et al. in the method of Shaver et al., as modified by Lesguillier et al., in order to provide communication via a power transmission line to a subscriber.

Consider claim 13, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention as applied to claim 7 above, and in addition, Shaver et al.

further disclose external electronic device distinct from the external interface module and communicating with the electronic central unit of said external interface module (power line station can also include a repeater section 255 adapted to communicate directly with a wireless station 232 within the HomeAll 200 [col. 4 lines 12-15]).

Consider claim 15, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention as applied to claim 7 above, and in addition, Shaver et al. further disclose a central base, and in which the electronic central unit of the external interface module is suitable for causing messages intended to be sent by the central base in the form of outgoing service messages to be generated on the supply line, by the interface circuit of said external interface module (power line station can also include a repeater section adapted to communicate directly with a wireless station within the HomeAll; the repeater section only provides for access between one type of wired medium and the wireless medium; a power line station adapted with a repeater section can communicate directly with wireless stations as well as with other power line stations, and station-to-station with phone line stations via the access point [col. 4 lines 30-45]).

 Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shaver et al. (US 6,947,736 B2), Lesguillier et al. (US

Art Unit: 2617

6,727,804 B1) and Chow et al. (US 7,573,891 B1), in view of Folger et al. (5,337,044), and in further view of De Ruijter et al. (US 2005/0036568 A1).

Consider claim 3, and as applied to claim 1 above, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly shows and discloses the claimed invention except an interface circuit is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz.

In the same field of endeavor, De Ruijter et al. clearly show and disclose an interface circuit of the central base (external interface module) is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz (a data slicer circuit for extracting data from a received analogue signal, the received analogue signal having a preamble of a predetermined preamble frequency and a data portion with the data, the data portion having a predetermined data frequency; during reception of the data 3db cut-off frequency of the low-pass filter is set to 100 Hz, [paragraphs 5, 8]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter set to 100Hz as taught by De Ruijter et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., in order to implement a home network using multiple protocols.

Consider claim 10, and as applied to claim 7 above, the combination of Shaver et al. and Lesquillier et al., as modified by Chow et al. and Folger et al.,

clearly shows and discloses the claimed invention except an interface circuit suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz.

In the same field of endeavor, De Ruijter et al. clearly show and disclose in which the interface circuit of the external interface module is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz (a data slicer circuit for extracting data from a received analogue signal, the received analogue signal having a preamble of a predetermined preamble frequency and a data portion with the data, the data portion having a predetermined data frequency; during reception of the data 3db cut-off frequency of the low-pass filter is set to 100 Hz, [paragraphs 5, 8]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter set to 100Hz as taught by De Ruijter et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., in order to implement a home network using multiple protocols.

7. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shaver et al. (US 6,947,736 B2), Lesguillier et al. (US 6,727,804 B1) and Chow et al. (US 7,573,891 B1), in view of Folger et al. (5,337,044), and in further view of Johnston et al. (5,787,360).

Art Unit: 2617

Consider claim 4, and as applied to claim 1 above, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention except that the interface circuit is controlled by a serial interface controller.

In the same field of endeavor, Johnston et al. clearly show and disclose an interface circuit of the central base is controlled by the electronic central unit of the central base via a serial interface controller (each base station has a LAN interface for connection to a local area network; base station 12 includes a microprocessor, radio interface, telephone interface, a LAN interface, and a serial interface that contains a UART, [abstract, col. 10 line 22- col. 11 line 11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a UART within the base station as taught by Johnston et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., in order to convert between data received over the associated link and data signals propagating in bit-serial form (Johnston et al.; col. 11 lines 5-9).

Consider claim 11, and as applied to claim 7 above, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention except that the interface circuit is controlled by a serial interface controller.

In the same field of endeavor, Johnston et al. clearly show and disclose in which the interface circuit of the external interface module is controlled by the

electronic central unit of the central base via a serial interface controller (in a mobile communications system each radio unit is associated with a 'home' station, and each base station has a LAN interface for connection to a local area network. The base station 12 includes a microprocessor, radio interface, telephone interface, a LAN interface, and a serial interface that contains a UART, [abstract, col. 10 line 22- col. 11 line 11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a UART within the base station as taught by Johnston et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., in order to convert between data received over the associated link and data signals propagating in bit-serial form (Johnston et al.; col. 11 lines 5-9).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shaver et al. (US 6,947,736 B2), Lesguillier et al. (US 6,727,804 B1) and Chow et al. (US 7,573,891 B1), in view of Folger et al. (5,337,044), and in further view of Watler et al. (US 6,836,655 B1).

Consider claim 12, and as applied to claim 7 above, the combination of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., clearly show and disclose the claimed invention except communicating according to a half-duplex asynchronous protocol. In the same field of endeavor, Watler et al. clearly show and disclose a central base and the external interface module are suitable for communicating together according to a half-duplex asynchronous protocol (an interlink receiver system and receiver unit for remote encoding of wireless phone units. The interlink receiver is plugged into the phone unit by removing the battery pack and seating a SIM card in the handset with the electrical contacts of the SIM card in contact with the terminal contacts of the phone unit. The phone unit complies with a communication protocol in ISO 7816 to exchange data and code commands with the SIM card [abstract, col. 9 lines 22-39]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to communicate using ISO7816 standards (half-duplex asynchronous protocol) as taught by Watler et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., in order to implement a home network using multiple protocols.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Shaver et al. (US 6,947,736 B2), Lesguillier et al. (US 6,727,804 B1) and Chow et al. (US 7,573,891 B1), in view of Folger et al. (5,337,044), and in further view of Griffin et al. (US 2004/0063456 A1).

Consider claim 14, and as applied to claim 13 above, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention except an external electronic device is chosen from a sensor, an actuator and a centralized command and control device suitable for being connected to a plurality of sensors and actuators.

In the same field of endeavor, Griffin et al. clearly show and disclose an external electronic device is chosen from a sensor, an actuator and a centralized command and control device suitable for being connected to a plurality of sensors and actuators (the communication device may include a camera component for displaying or sending video images to the communication device user, or could include sensory circuits for monitoring the communication device user's vital information such as pulse and blood pressure. A nurse or doctor in a hospital floor could wear the first component, while the second might be in a patient's room monitoring some vital statistics [abstract, paragraph 57]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have multiple devices communicate with each other as taught by Griffin et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Chow et al. and Folger et al., in order to implement a home network using multiple protocols.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is

Art Unit: 2617

(571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.